

AIRCRAFT WHEEL SPIN-UP ROTOR

Abstract

It is, therefore, an object of the present invention to create an aircraft wheel "Spin-Up" (pre-spin) on approach to landing so that it reduces wear on aircraft tire tread, as well as reduces shear stress on the tire body, thus increasing safety and the life span of the tire while reducing the life cycle cost of the aircraft. It is another object of the present invention to provide this wheel spin-up by use of the existing airflow, without the need for electronics, hydraulics, pneumatics, or other additional hardware beyond the near-non-moving parts of the Aircraft Wheel Spin-Up Rotor. It is yet another object of the present invention to provide this aircraft wheel spin-up in a way that is easily retrofit to existing aircraft without a significant addition of hardware or disruption in operating and maintenance procedures. It is a further object of the present invention to provide this wheel spin-up in a way that reduces the touchdown stresses, fatigue, and safety problems related to the sliding frictional impulse caused by the disparity between the wheel speed and the runway speed, not the least of which are skidding during emergency and adverse landings such

as on ice, snow, rocky terrain, and rain-wet runways.